

chain nodes :

7 8 10 14 15

ring nodes :

1 2 3 4 5 6

ring/chain nodes :

9 11 12

chain bonds :

2-14 5-7 7-8 7-9 9-10 9-11 9-12 14-15

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

1-2 1-6 2-3 2-14 3-4 4-5 5-6 5-7 7-8 9-10 9-11 9-12 14-15

exact bonds :

7-9

isolated ring systems :

containing 1 :

G1: Cy, Ak

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS  
11:CLASS 12:CLASS 14:CLASS 15:CLASS

10/069995

=> s l1

SAMPLE SEARCH INITIATED 13:07:35 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 26 TO ITERATE

100.0% PROCESSED 26 ITERATIONS 2 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 215 TO 825  
PROJECTED ANSWERS: 2 TO 124

L2 2 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 13:07:49 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 668 TO ITERATE

100.0% PROCESSED 668 ITERATIONS 53 ANSWERS  
SEARCH TIME: 00.00.01

L3 53 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	148.55	148.97

FILE 'CAPLUS' ENTERED AT 13:07:56 ON 05 AUG 2003  
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FILE COVERS 1907 - 5 Aug 2003 VOL 139 ISS 6  
FILE LAST UPDATED: 4 Aug 2003 (20030804/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3

L4 8 L3

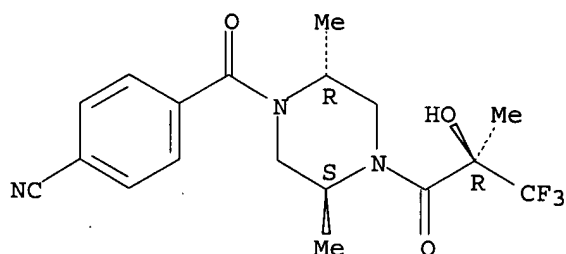
=> d l4 1-8 bib abs hitstr

10/069995

L4 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2002:773695 CAPLUS  
DN 137:290934  
TI Crystal structure of a human pyruvate dehydrogenase kinase 2 (PDHK-2) and PDHK-2 complexes with ligands and use in methods for identifying and designing new ligands  
IN Knoechel, Thorsten Reginald; Robinson, Colin Mark; Taylor, Wendy Elaine; Tucker, Alexander Dunbar  
PA Pfizer Limited, UK; Pfizer Inc.  
SO Eur. Pat. Appl., 304 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1247860	A1	20021009	EP 2002-252180	20020326
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2003024084	A2	20030128	JP 2002-104923	20020408
PRAI	GB 2001-8736	A	20010406		
	GB 2001-8867	A	20010409		
AB	The present invention relates to crystals of human pyruvate dehydrogenase kinase 2 (PDHK-2) and to fusion proteins comprising PDHK-2. The invention also relates to high resolu. three dimensional structures of PDHK-2 in the presence or absence of physiol. and synthetic ligands obtained by x-ray diffraction and use of the structures to identify, design or select compds. that bind to PDHK-2. The invention further relates to compds. identified, designed or selected using high resolu. structures of PDHK-2. Also provided are nucleotide sequences used to obtain crystallizable PDHK-2 proteins.				
IT	243982-58-3DP, complexes with PDHK-2 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses) (crystal structure of human pyruvate dehydrogenase kinase 2 (PDHK-2) and PDHK-2 complexes with ligands and use in methods for identifying and designing new ligands)				
RN	243982-58-3 CAPLUS				
CN	Piperazine, 1-(4-cyanobenzoyl)-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)				

Absolute stereochemistry.



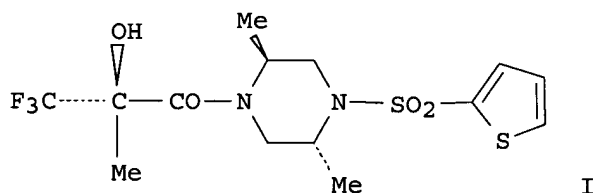
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/069995

L4 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2001:185706 CAPLUS  
DN 134:237497  
TI N-Acyl heterocycles as inhibitors of pyruvate dehydrogenase  
IN Butlin, Roger John; Pease, Janet Elizabeth; Block, Michael Howard; Nowak, Thorsten; Burrows, Jeremy Nicholas; Clarke, David Stephen  
PA Astrazeneca AB, Swed.; Astrazeneca UK Ltd.  
SO PCT Int. Appl., 54 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

APPS

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001017942	A1	20010315	WO 2000-GB3297	20000830
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	EP 1214287	A1	20020619	EP 2000-954797	20000830
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL			
	JP 2003508509	T2	20030304	JP 2001-521689	20000830
PRAI	GB 1999-20821	A	19990904		
	GB 1999-29835	A	19991218		
	WO 2000-GB3297	W	20000830		
OS	MARPAT 134:237497				
GI					



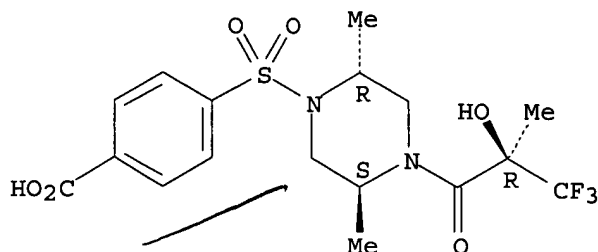
AB Title compds. such as (2S,2'R,5R)-I were prepd. as inhibitors of pyruvate dehydrogenase. Thus, 150 mg (R)-[(2S,5R)-2,5-dimethyl-1-(3,3,3-trifluoro-2-hydroxy-2-methylpropionyl)piperazine] was stirred with 129 mg 2-thiophenesulfonyl chloride and 0.125 mL Et<sub>3</sub>N in 25 mL EtOAc 4 h at ambient temp. to give 71 mg (2S,2'R,5R)-I. Pharmaceutical formulations were given.

IT 329794-54-9P 329794-56-1P 329794-76-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(N-acyl heterocycles as inhibitors of pyruvate dehydrogenase)

RN 329794-54-9 CAPLUS  
CN Benzoic acid, 4-[[[(2R,5S)-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-1-piperazinyl]sulfonyl]- (9CI) (CA INDEX NAME)

10/069995

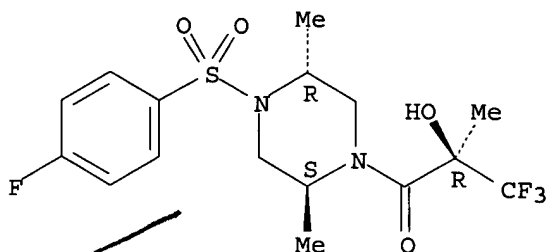
Absolute stereochemistry.



RN 329794-56-1 CAPLUS

CN Piperazine, 1-[(4-fluorophenyl)sulfonyl]-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

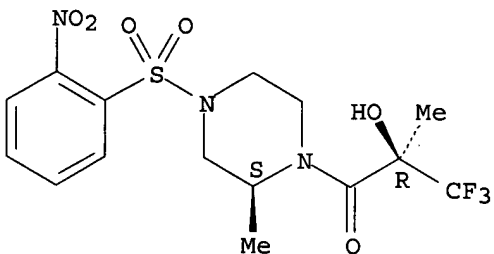
Absolute stereochemistry.



RN 329794-76-5 CAPLUS

CN Piperazine, 2-methyl-4-[(2-nitrophenyl)sulfonyl]-1-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 329794-52-7P 329794-53-8P 329794-55-0P

329794-57-2P 329794-60-7P 329794-61-8P

329794-62-9P 329794-63-0P 329794-64-1P

329794-65-2P 329794-66-3P 329794-67-4P

329794-68-5P 329794-69-6P 329794-72-1P

329794-73-2P 329794-74-3P 329794-75-4P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

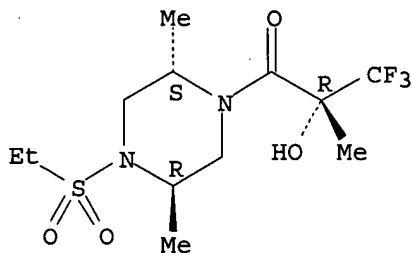
(N-acyl heterocycles as inhibitors of pyruvate dehydrogenase)

RN 329794-52-7 CAPLUS

CN Piperazine, 1-(ethylsulfonyl)-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

10/069995

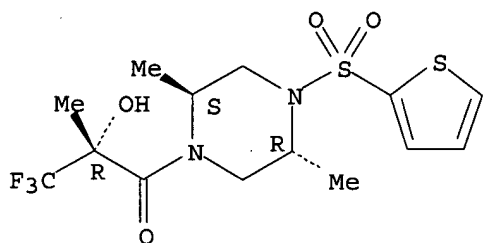
Absolute stereochemistry.



RN 329794-53-8 CAPLUS

CN Piperazine, 2,5-dimethyl-1-(2-thienylsulfonyl)-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

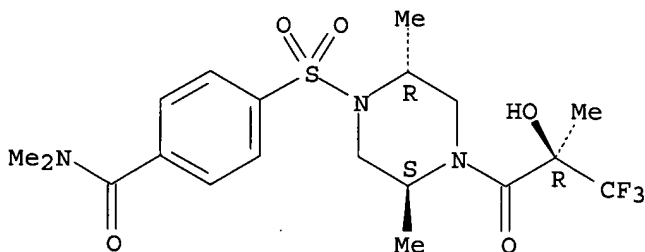
Absolute stereochemistry.



RN 329794-55-0 CAPLUS

CN Benzamide, 4-[[[(2R,5S)-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-1-piperazinyl]sulfonyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

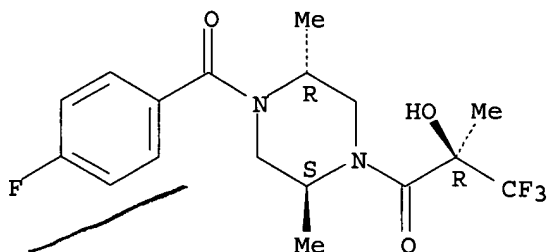


RN 329794-57-2 CAPLUS

CN Piperazine, 1-(4-fluorobenzoyl)-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

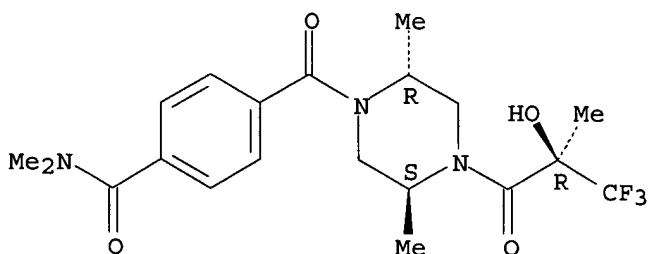
10/069995



RN 329794-60-7 CAPLUS

CN Benzamide, 4-[[[(2R,5S)-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-1-piperazinyl]carbonyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)

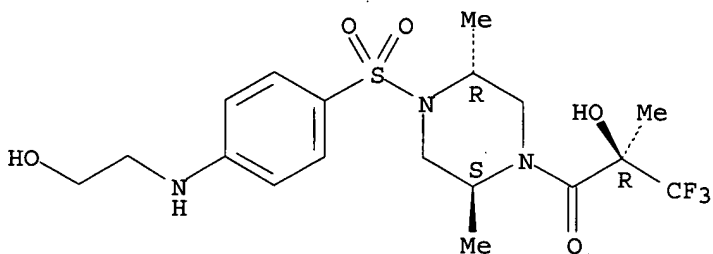
Absolute stereochemistry.



RN 329794-61-8 CAPLUS

CN Piperazine, 1-[[[4-[(2-hydroxyethyl)aminophenyl]sulfonyl]-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

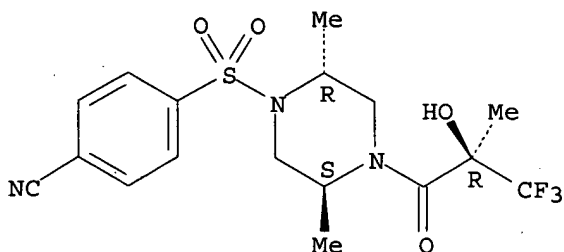


RN 329794-62-9 CAPLUS

CN Piperazine, 1-[[[4-(cyanophenyl)sulfonyl]-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

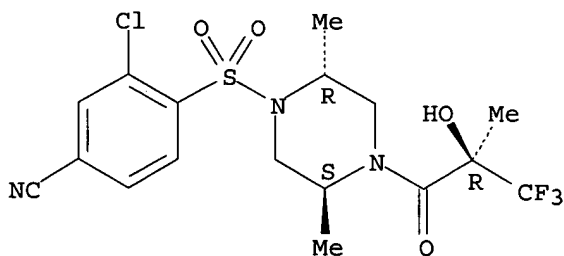
10/069995



RN 329794-63-0 CAPLUS

CN Piperazine, 1-[(2-chloro-4-cyanophenyl)sulfonyl]-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

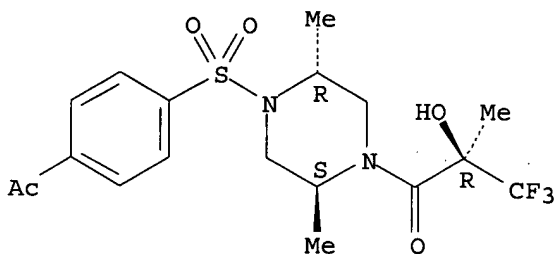
Absolute stereochemistry.



RN 329794-64-1 CAPLUS

CN Piperazine, 1-[(4-acetylphenyl)sulfonyl]-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



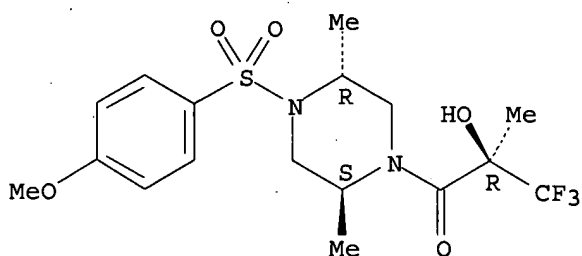
RN 329794-65-2 CAPLUS

CN Piperazine, 1-[(4-methoxyphenyl)sulfonyl]-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



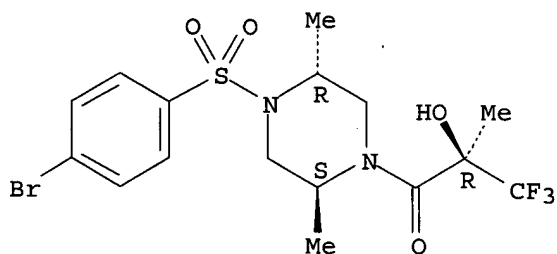
10/069995



RN 329794-66-3 CAPLUS

CN Piperazine, 1-[(4-bromophenyl)sulfonyl]-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

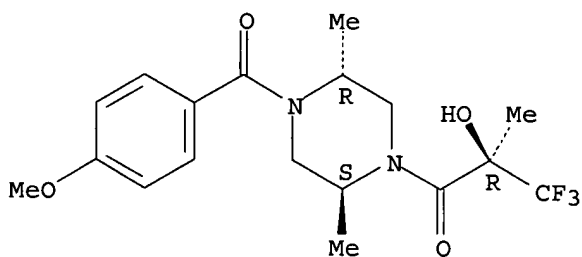
Absolute stereochemistry.



RN 329794-67-4 CAPLUS

CN Piperazine, 1-(4-methoxybenzoyl)-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

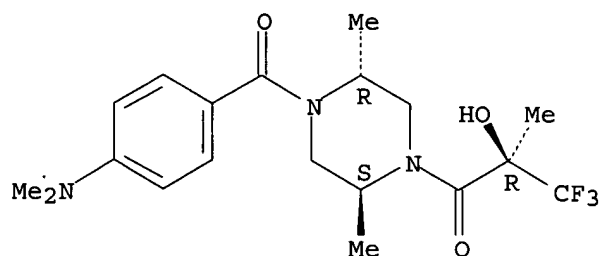


RN 329794-68-5 CAPLUS

CN Piperazine, 1-[4-(dimethylamino)benzoyl]-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

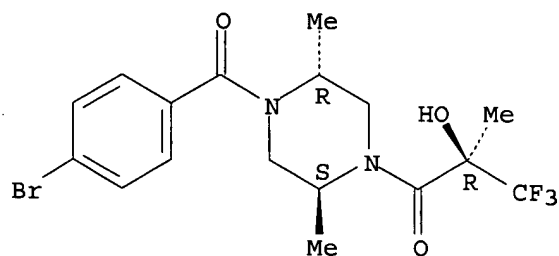
10/069995



RN 329794-69-6 CAPLUS

CN Piperazine, 1-(4-bromobenzoyl)-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

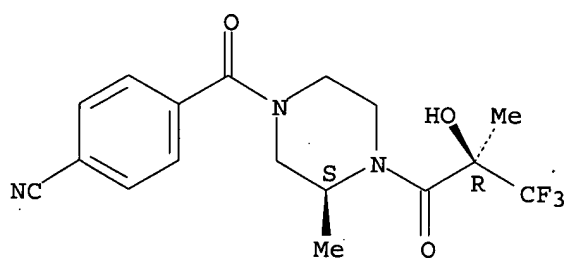
Absolute stereochemistry.



RN 329794-72-1 CAPLUS

CN Piperazine, 4-(4-cyanobenzoyl)-2-methyl-1-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

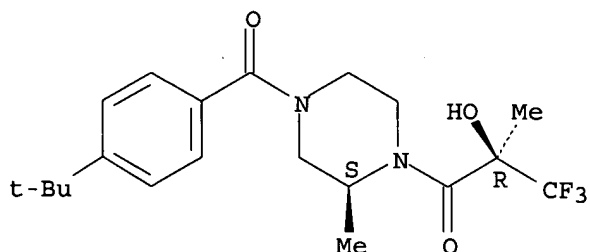


RN 329794-73-2 CAPLUS

CN Piperazine, 4-[4-(1,1-dimethylethyl)benzoyl]-2-methyl-1-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

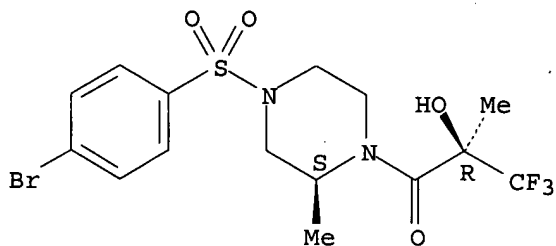
10/069995



RN 329794-74-3 CAPLUS

CN Piperazine, 4-[(4-bromophenyl)sulfonyl]-2-methyl-1-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2S)- (9CI) (CA INDEX NAME)

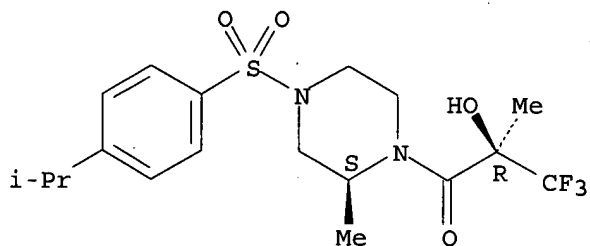
Absolute stereochemistry.



RN 329794-75-4 CAPLUS

CN Piperazine, 2-methyl-4-[[4-(1-methylethyl)phenyl]sulfonyl]-1-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

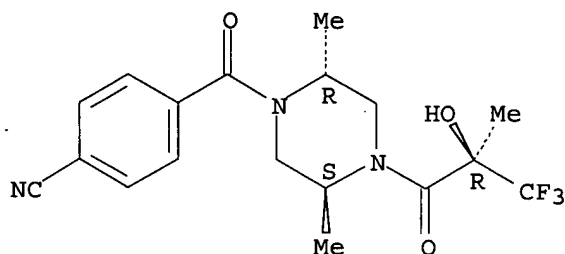


RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/069995.

L4 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2000:469974 CAPLUS  
DN 133:277917  
TI Diverse mechanisms of inhibition of pyruvate dehydrogenase kinase by structurally distinct inhibitors  
AU Mann, W. R.; Dragland, C. J.; Vinluan, C. C.; Vedananda, T. R.; Bell, P. A.; Aicher, T. D.  
CS Metabolic and Cardiovascular Diseases Research, Novartis Institute for Biomedical Research, Summit, NJ, 07901-1398, USA  
SO Biochimica et Biophysica Acta (2000), 1480(1-2), 283-292  
CODEN: BBACAQ; ISSN: 0006-3002  
PB Elsevier Science B.V.  
DT Journal  
LA English  
AB The mechanism of action of structurally distinct pyruvate dehydrogenase kinase (PDK) inhibitors was examd. in assays with exptl. contexts ranging from an intact pyruvate dehydrogenase complex (PDC) with and without supplemental ATP or ADP to a synthetic peptide substrate to PDK autophosphorylation. Some compds. directly inhibited the catalytic activity of PDKs. Some of the inhibitor classes tested inhibited autophosphorylation of recombinant PDK1 and PDK2. During these studies, PDC was shown to be directly inhibited by a novel mechanism; the addn. of supplemental recombinant PDKs, an effect that is ADP-dependent and partly alleviated by members of each of the compd. classes tested. Overall, these data demonstrate that small mols. acting at diverse sites can inhibit PDK activity.  
IT 243982-58-3  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(diverse mechanisms of inhibition of pyruvate dehydrogenase kinase by structurally distinct inhibitors)  
RN 243982-58-3 CAPLUS  
CN Piperazine, 1-(4-cyanobenzoyl)-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



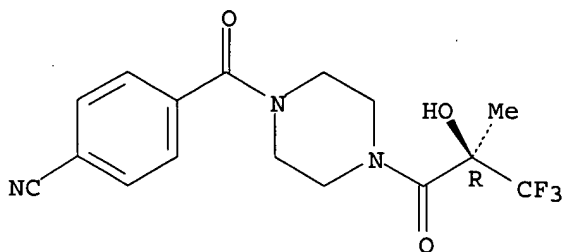
prov. out

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2000:60177 CAPLUS  
 DN 132:189302  
 TI Secondary Amides of (R)-3,3,3-Trifluoro-2-hydroxy-2-methylpropionic Acid as Inhibitors of Pyruvate Dehydrogenase Kinase  
 AU Aicher, Thomas D.; Anderson, Robert C.; Gao, Jiaping; Shetty, Suraj S.; Coppola, Gary M.; Stanton, James L.; Knorr, Douglas C.; Sperbeck, Donald M.; Brand, Leonard J.; Vinluan, Christine C.; Kaplan, Emma L.; Dragland, Carol J.; Tomaselli, Hollis C.; Islam, Amin; Lozito, Robert J.; Liu, Xilin; Maniara, Wieslawa M.; Fillers, William S.; DelGrande, Dominick; Walter, R. Eric; Mann, William R.  
 CS Novartis Institute for Biomedical Research, Summit, NJ, 07901, USA  
 SO Journal of Medicinal Chemistry (2000), 43(2), 236-249  
 CODEN: JMCMAR; ISSN: 0022-2623  
 PB American Chemical Society  
 DT Journal  
 LA English  
 OS CASREACT 132:189302  
 AB N'-Methyl-N-(4-tert-butyl-1,2,5,6-tetrahydropyridine)thiourea, SDZ048-619, is a modest inhibitor ( $IC_{50} = 180 \mu M$ ) of pyruvate dehydrogenase kinase (PDHK). In an optimization of the N-methylcarbothioamide moiety of SDZ048-619, it was discovered that amides with a small acyl group, in particular appropriately substituted amides of (R)-3,3,3-trifluoro-2-hydroxy-2-methylpropionic acid, are inhibitors of PDHK. Utilizing this acyl moiety, herein is reported the rationale leading to the optimization of a series of acylated piperazine derivs. Me substitution of the piperazine at the 2- and 5-positions (with S and R abs. stereochem.) markedly increased the potency of the lead compd. (>1000-fold). Oral bioavailability of the compds. in this series is good and is optimal (as measured by AUC) when the 4-position of the piperazine is substituted with an electron-poor benzoyl moiety. (+)-1-N-[2,5-(S,R)-Dimethyl-4-N-(4-cyanobenzoyl)piperazine]-(R)-3,3,3-trifluoro-2-hydroxy-2-methylpropanamide inhibits PDHK in the primary enzymic assay with an  $IC_{50}$  of 16 nM, enhances the oxidn. of [14C]lactate into  $^{14}CO_2$  in human fibroblasts with an  $EC_{50}$  of 57 nM, diminishes lactate significantly 2.5 h post-oral-dose at doses as low as 1  $\mu mol/kg$ , and increases the ex vivo activity of pyruvate dehydrogenase in muscle, liver, and fat tissues in normal Sprague-Dawley rats. These PDHK inhibitors, however, do not lower glucose in diabetic animal models.  
 IT 243982-52-7P 243982-55-0P 243982-56-1P  
 243982-58-3P 260254-22-6P 260254-23-7P  
 260254-24-8P 260254-27-1P 260254-30-6P  
 260254-31-7P 260254-32-8P 260254-34-0P  
 260254-35-1P 260254-37-3P 260254-38-4P  
 260254-39-5P 260254-40-8P 260254-41-9P  
 260254-42-0P 260254-49-7P 260254-51-1P  
 260254-53-3P 260254-54-4P 260254-56-6P  
 260254-57-7P 260254-58-8P 260254-59-9P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (secondary amides of (R)trifluorohydroxymethylpropionic acid as inhibitors of pyruvate dehydrogenase kinase in relation to structure and treatment of diabetes)  
 RN 243982-52-7 CAPLUS  
 CN Piperazine, 1-(4-cyanobenzoyl)-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

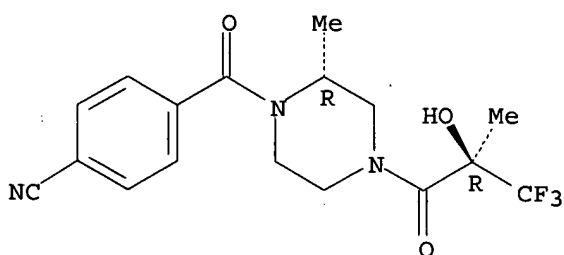
10/069995



RN 243982-55-0 CAPLUS

CN Piperazine, 1-(4-cyanobenzoyl)-2-methyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R)- (9CI) (CA INDEX NAME)

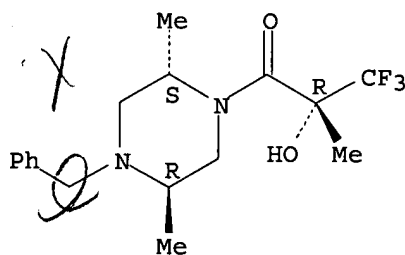
Absolute stereochemistry.



RN 243982-56-1 CAPLUS

CN Piperazine, 2,5-dimethyl-1-(phenylmethyl)-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

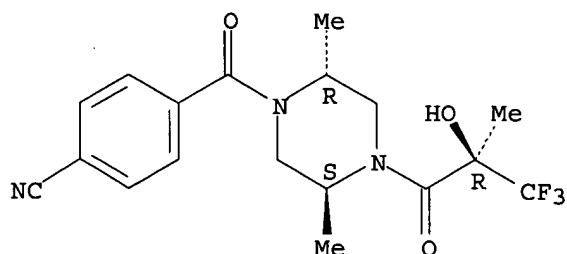


RN 243982-58-3 CAPLUS

CN Piperazine, 1-(4-cyanobenzoyl)-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

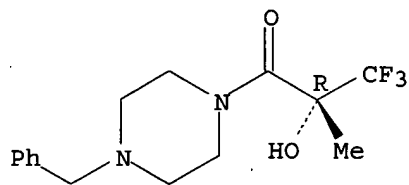
10/069995



RN 260254-22-6 CAPLUS

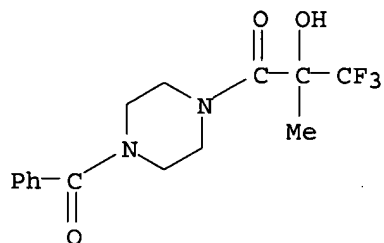
CN Piperazine, 1-(phenylmethyl)-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



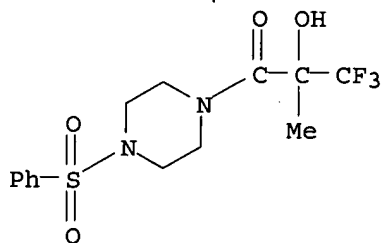
RN 260254-23-7 CAPLUS

CN Piperazine, 1-benzoyl-4-(3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl)- (9CI) (CA INDEX NAME)



RN 260254-24-8 CAPLUS

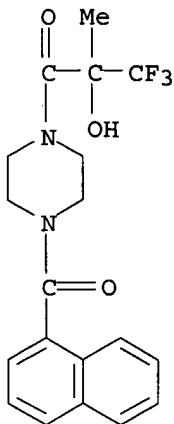
CN Piperazine, 1-(phenylsulfonyl)-4-(3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl)- (9CI) (CA INDEX NAME)



RN 260254-27-1 CAPLUS

10/069995

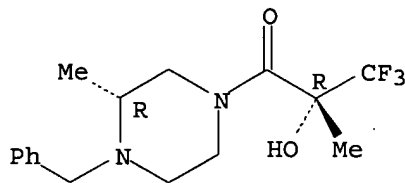
CN Piperazine, 1-(1-naphthalenylcarbonyl)-4-(3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl)- (9CI) (CA INDEX NAME)



RN 260254-30-6 CAPLUS

CN Piperazine, 2-methyl-1-(phenylmethyl)-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R)- (9CI) (CA INDEX NAME)

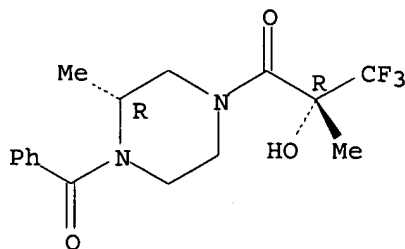
Absolute stereochemistry.



RN 260254-31-7 CAPLUS

CN Piperazine, 1-benzoyl-2-methyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



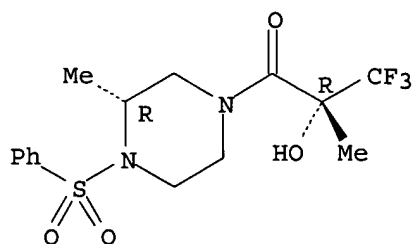
RN 260254-32-8 CAPLUS

CN Piperazine, 2-methyl-1-(phenylsulfonyl)-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



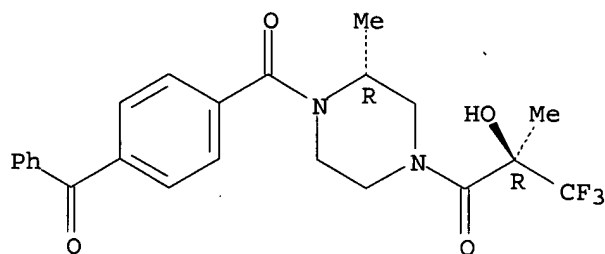
10/069995



RN 260254-34-0 CAPLUS

CN Piperazine, 1-(4-benzoylbenzoyl)-2-methyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R)- (9CI) (CA INDEX NAME)

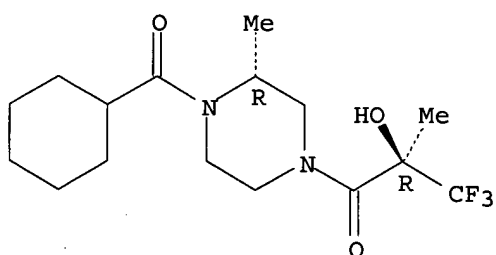
Absolute stereochemistry.



RN 260254-35-1 CAPLUS

CN Piperazine, 1-(cyclohexylcarbonyl)-2-methyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

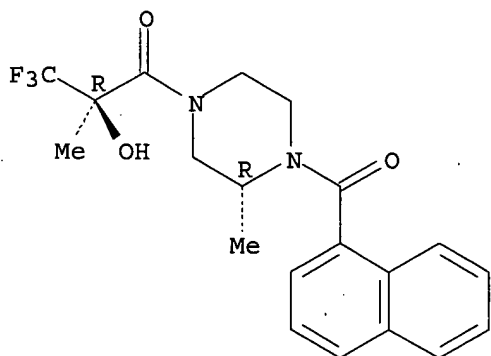


RN 260254-37-3 CAPLUS

CN Piperazine, 2-methyl-1-(1-naphthalenylcarbonyl)-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

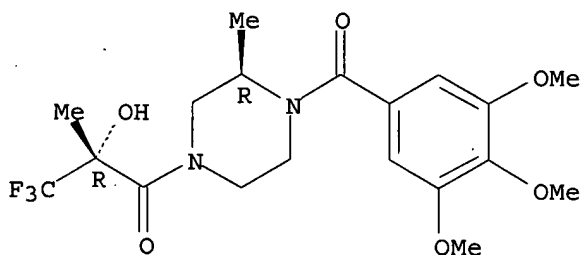
10/069995



RN 260254-38-4 CAPLUS

CN Piperazine, 2-methyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-1-(3,4,5-trimethoxybenzoyl)-, (2R)- (9CI) (CA INDEX NAME)

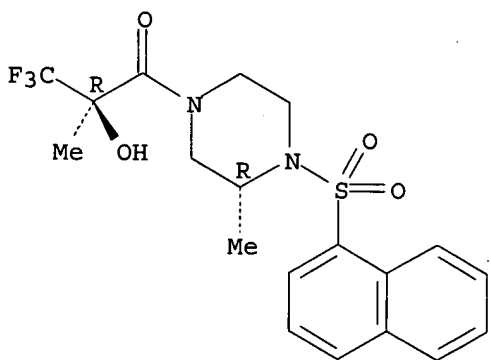
Absolute stereochemistry. Rotation (-).



RN 260254-39-5 CAPLUS

CN Piperazine, 2-methyl-1-(1-naphthalenylsulfonyl)-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

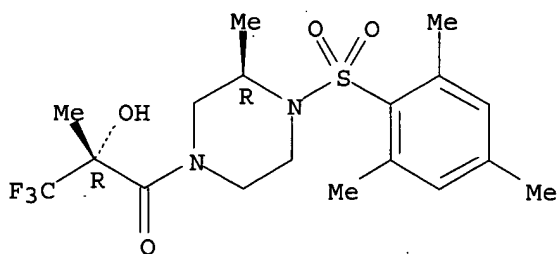


RN 260254-40-8 CAPLUS

CN Piperazine, 2-methyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-1-[(2,4,6-trimethylphenyl)sulfonyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

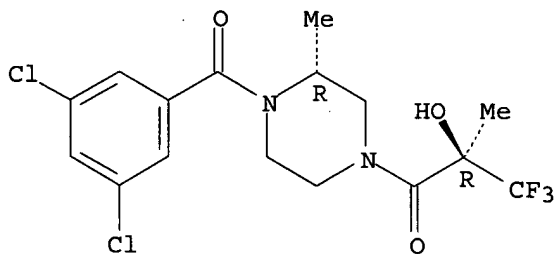
10/069995



RN 260254-41-9 CAPLUS

CN Piperazine, 1-(3,5-dichlorobenzoyl)-2-methyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R)- (9CI) (CA INDEX NAME)

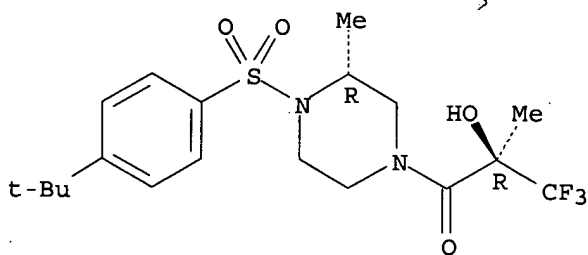
Absolute stereochemistry.



RN 260254-42-0 CAPLUS

CN Piperazine, 1-[[4-(1,1-dimethylethyl)phenyl]sulfonyl]-2-methyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

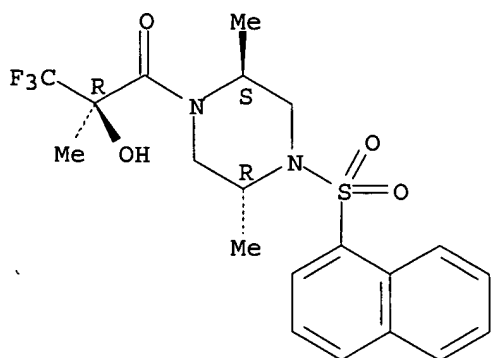


RN 260254-49-7 CAPLUS

CN Piperazine, 2,5-dimethyl-1-(1-naphthalenylsulfonyl)-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

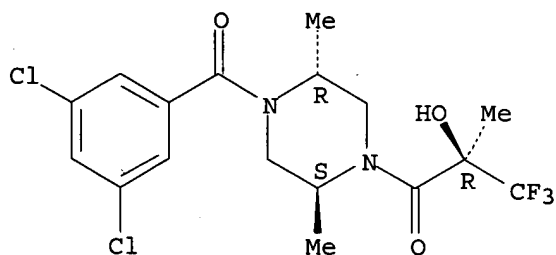
10/069995



RN 260254-51-1 CAPLUS

CN Piperazine, 1-(3,5-dichlorobenzoyl)-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

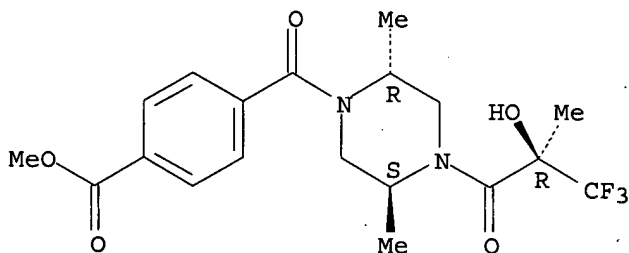
Absolute stereochemistry.



RN 260254-53-3 CAPLUS

CN Benzoic acid, 4-[[[(2R,5S)-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-1-piperazinyl]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

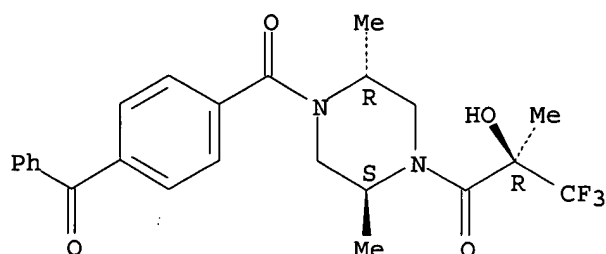


RN 260254-54-4 CAPLUS

CN Piperazine, 1-(4-benzoylbenzoyl)-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

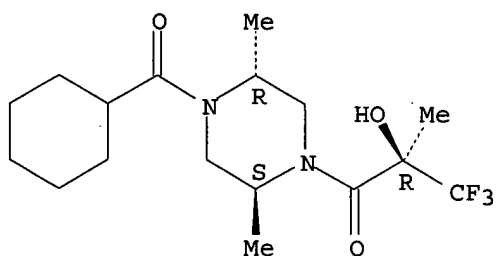
10/069995



RN 260254-56-6 CAPLUS

CN Piperazine, 1-(cyclohexylcarbonyl)-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

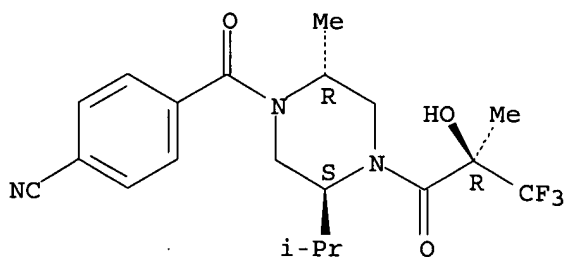
Absolute stereochemistry.



RN 260254-57-7 CAPLUS

CN Piperazine, 1-(4-cyanobenzoyl)-2-methyl-5-(1-methylethyl)-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

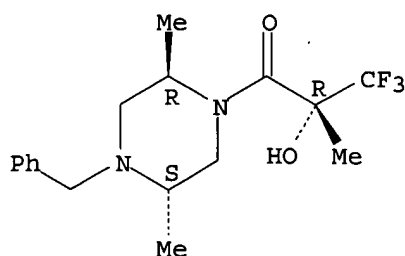


RN 260254-58-8 CAPLUS

CN Piperazine, 2,5-dimethyl-1-(phenylmethyl)-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

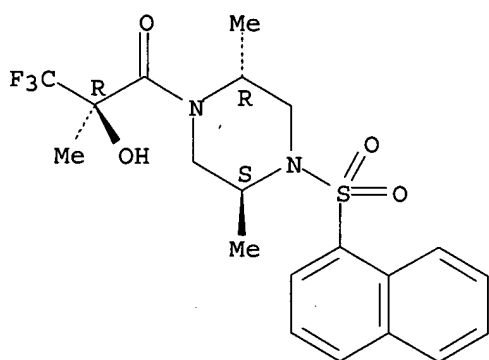
10/069995



RN 260254-59-9 CAPLUS

CN Piperazine, 2,5-dimethyl-1-(1-naphthalenylsulfonyl)-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 260254-76-0P

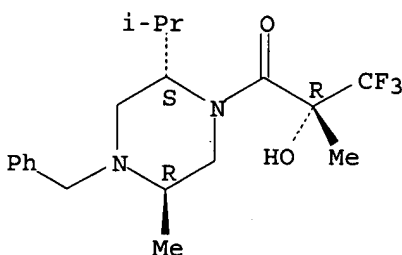
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(secondary amides of (R)trifluorohydroxymethylpropionic acid as inhibitors of pyruvate dehydrogenase kinase in relation to structure and treatment of diabetes)

RN 260254-76-0 CAPLUS

CN Piperazine, 2-methyl-5-(1-methylethyl)-1-(phenylmethyl)-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



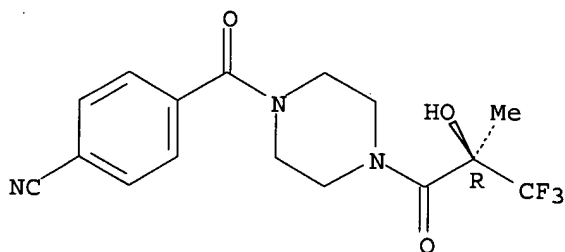
RE.CNT 75

THERE ARE 75 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/069995

L4 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1999:436784 CAPLUS  
 DN 131:222995  
 TI (R)-3,3,3-Trifluoro-2-hydroxy-2-methylpropionamides Are Orally Active Inhibitors of Pyruvate Dehydrogenase Kinase  
 AU Aicher, Thomas D.; Anderson, Robert C.; Bebernitz, Gregory R.; Coppola, Gary M.; Jewell, Charles F.; Knorr, Douglas C.; Liu, Charles; Sperbeck, Donald M.; Brand, Leonard J.; Strohschein, Robert J.; Gao, Jiaping; Vinluan, Christine C.; Shetty, Suraj S.; Dragland, Carol; Kaplan, Emma L.; DelGrande, Dominick; Islam, Amin; Liu, Xilin; Lozito, Robert J.; Maniara, Wieslawa M.; Walter, R. Erik; Mann, William R.  
 CS Novartis Institute for Biomedical Research, Summit, NJ, 07901, USA  
 SO Journal of Medicinal Chemistry (1999), 42(15), 2741-2746  
 CODEN: JMCMAR; ISSN: 0022-2623  
 PB American Chemical Society  
 DT Journal  
 LA English  
 AB Diverse amides of (R)-3,3,3-trifluoro-2-hydroxy-2-methylpropionic acid were inhibitors of pyruvate dehydrogenase kinase (PDHK) without halogens .alpha.,.alpha. to a carbonyl. In addn. to the probable reduced toxicity due to not having halogens .alpha. to a carbonyl, these compds. were more potent in the primary enzymic assay than any of the previously reported compds. by up to 500-fold. They are the first compds. other than dichlorinated halogenated acids known to be active in a cellular assay. Some of the amides were potent and orally bioavailable inhibitors of PDHK in vivo. The expected consequence of PDHK inhibition, the activation of the pyruvate dehydrogenase complex, was obsd. indirectly in vivo by measuring the lowering of lactate in normal 24-h fasted rats after oral dosing. These compds. will allow further pharmacol. investigation of the effect of increasing oxidative disposal of lactate and pyruvate in disease states such as diabetes, ischemia, endotoxic or hemorrhagic shock, lactic acidosis and cardiac insufficiency.  
 IT 243982-52-7P 243982-55-0P 243982-56-1P  
 243982-58-3P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (prepn. of trifluorohydroxymethylpropionamides as orally active inhibitors of pyruvate dehydrogenase kinase)  
 RN 243982-52-7 CAPLUS  
 CN Piperazine, 1-(4-cyanobenzoyl)-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

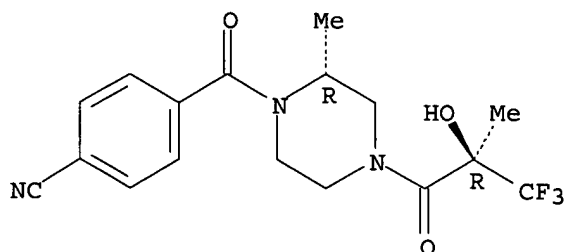


RN 243982-55-0 CAPLUS  
 CN Piperazine, 1-(4-cyanobenzoyl)-2-methyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R)- (9CI) (CA INDEX NAME)



10/069995

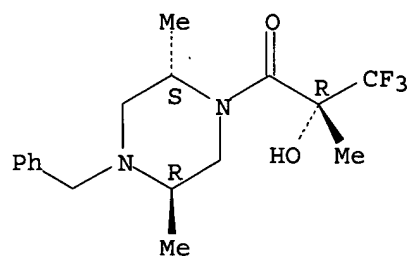
Absolute stereochemistry.



RN 243982-56-1 CAPLUS

CN Piperazine, 2,5-dimethyl-1-(phenylmethyl)-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

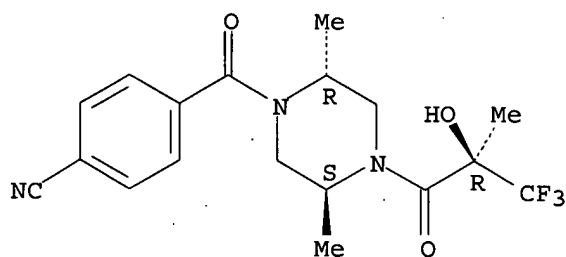
Absolute stereochemistry.



RN 243982-58-3 CAPLUS

CN Piperazine, 1-(4-cyanobenzoyl)-2,5-dimethyl-4-[(2R)-3,3,3-trifluoro-2-hydroxy-2-methyl-1-oxopropyl]-, (2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

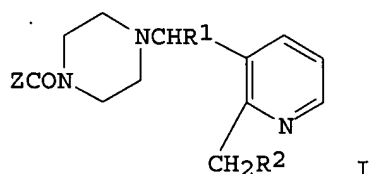


RE.CNT 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/069995

L4 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1993:539266 CAPLUS  
DN 119:139266  
TI (2-alkyl-3-pyridyl)methylpiperazine derivatives as platelet activating factor (PAF) antagonists  
IN Carceller, Elena; Jimenez, Pere J.; Recasens, Nuria; Almansa, Carmen; Bartroli, Javier  
PA Uriach, J., y Cia. S.A., Spain  
SO Eur. Pat. Appl., 78 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 528172	A1	19930224	EP 1992-111986	19920714
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE				
	ES 2036926	A1	19930601	ES 1991-1855	19910808
	ES 2036926	B1	19940116		
	JP 05213879	A2	19930824	JP 1992-229142	19920805
	CA 2075673	AA	19930209	CA 1992-2075673	19920810
PRAI	ES 1991-1855		19910808		
OS	MARPAT 119:139266				
GI					

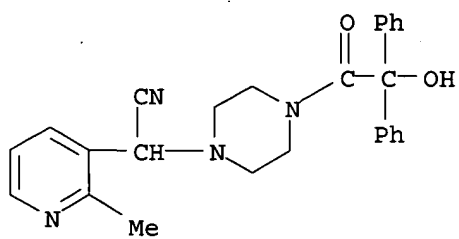


AB Title compds. I (R1 = cyano, R3O2C, (R3)2NCO, R3CO, R3C.tplbond.C, R3ON:CR3, wherein R3 = H, C1-6 alkyl; R2 = H, C1-3 alkyl; Z = R4R5R6C(CH2)n wherein n = 0-2; R4 = H, C1-6 alkyl, (substituted) Ph or 5-6-membered heterocyclyl, R5 = H, C1-6 alkyl, F3C, etc., R6 = H, C1-6 alkyl, (substituted) amino, etc.), and salts thereof useful as PAF antagonists, are prepd. To I (R1 = cyano, R2 = Me, Z = H2NCHPhCH2) (prepn. given) in MeOH was added PhCHO, followed by MeOH/HCl to adjust the pH to 6-7, after which was added NaBH3CN, the mixt. was stirred at room temp. for 18 h, the solvent removed and 0.1 N NaOH added to give I (R1 = cyano, R2 = Me, Z = PhCH2NHCHPhCH2) (II). In test for inhibition of platelet aggregation induced by PAF the IC50 of II was 0.0091 .mu.M. Addnl. I were prepd. and tested also for inhibition of hypotensive effect and mortality induced by PAF. Pharmaceutical formulations comprising I are given.

IT **149691-88-3P**  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of, as platelet activating factor antagonist)

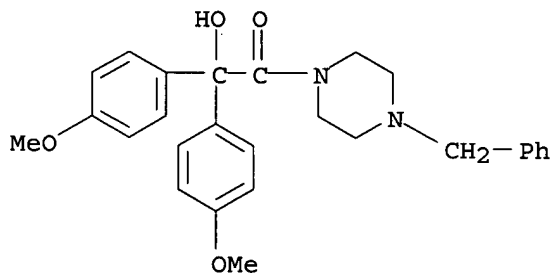
RN 149691-88-3 CAPLUS  
CN 1-Piperazineacetonitrile, 4-(hydroxydiphenylacetyl)-.alpha.-(2-methyl-3-pyridinyl)- (9CI) (CA INDEX NAME)

10/069995



10/069995

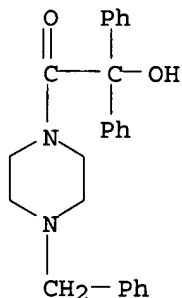
L4 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1972:46165 CAPLUS  
DN 76:46165  
TI Synthesis of basic amides derived from .alpha.,.alpha.-bis(4-methoxyphenyl)glycolicacid  
AU Rylski, Leszek; Kozakiewicz, Irena; Gorczyca, Eugenia; Mrowicka, Maria; Rzepecka, Krystyna  
CS Akad. Med., Gdansk, Pol.  
SO Acta Poloniae Pharmaceutica (1971), 28(3), 267-72  
CODEN: APPHAX; ISSN: 0001-6837  
DT Journal  
LA Polish  
GI For diagram(s), see printed CA Issue.  
AB I and II were prepd. for biol. testing for spasmolytic activity as structural analogs of adiphenine and hexahydroadiphenine. N-Substituted piperazine in anhyd. C6H6 treated under cooling with 1 mole ClCOC2Et and the mixt. refluxed 2 hr yielded 37% I-HCl (R=PhCH2CH2) or 61% I-HCl (R=PhCH2). The above I (yields 93 and 90%, resp.) as well as 77% I-HCl (R=Ph) were also prepd. in a similar reaction with (CO2Et)2. Grignard reaction between p-MeOC6H4MgI and I (liberated from I-HCl with K2CO3 and extd. with Et2O) gave upon hydrolysis with 25% aq. NH4Cl 31-69% II (R=PhCH2CH2; R=PhCH2; R=Ph).  
IT **35219-10-4P**  
RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)  
RN 35219-10-4 CAPLUS  
CN Piperazine, 1-[hydroxybis(4-methoxyphenyl)acetyl]-4-(phenylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

10/069995

L4 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1968:86028 CAPLUS  
DN 68:86028  
TI Hypocholesteremic agents. IV. Substituted piperazines  
AU Wright, Howard Bernard; Martin, Donald Lyons  
CS Res. Div., Abbott Lab., N. Chicago, IL, USA  
SO Journal of Medicinal Chemistry (1968), 11(2), 390-1  
CODEN: JMCMAR; ISSN: 0022-2623  
DT Journal  
LA English  
AB Comps. (24) related to chlorocyclizine and N-[.beta.-phenyl-.beta.-(3-chlorophenyl)-.beta.-hydroxyethyl)-N'-methylpiperazine were prepd. and tested for activity in reducing the blood cholesterol concn. in mice. The comps. had varying degrees of activity for the lowering of blood cholesterol, but the lowering was accompanied in general by an increased cellular mass in the liver.  
IT 19178-71-3  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(hypocholesteremic activity of)  
RN 19178-71-3 CAPLUS  
CN Piperazine, 1-benziloyl-4-benzyl-, monohydrochloride (8CI) (CA INDEX NAME)



HCl

10/069995

=> file caold

COST IN U.S. DOLLARS

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FULL ESTIMATED COST

40.04

189.01

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